What is claimed is:

1.   A video communication system comprising a video encoder and a video decoder, wherein the video encoder includes:

a data hiding processing unit for performing a data hiding to an error information provided from the video decoder, and transmitting a processed error information to the video decoder, the processed error information having a hidden data; and

a first error concealment processing unit for performing an error concealment with reference to the error information, and

wherein the video decoder includes:

a data extraction unit for extracting an information on an error frame, providing the extracted frame information to the video encoder, and extracting the hidden data provided from the video encoder; and

a second error concealment processing unit for performing an error concealment with reference to the extracted hidden data.

2.   The video communication system of claim 1, wherein the processed error information is embedded into an encoded data and transmitted from the data hiding processing unit to the video decoder.

3.   The video communication system of claim 1, wherein the processed error information is a reference frame number of a

frame that is encoded when the video encoder performs the error concealment.

4. The video communication system of claim 1, wherein the extracted frame information is an information that represents whether or not the error occurs in each GOB (group of block).

5. The video communication system of claim 1, wherein the video encoder performs the data hiding using a quantization parameter with respect to an encoding video image and/or a level value of a block to which a discrete cosine transform (DCT) is performed.

6. The video communication system of claim 5, wherein the level value is a value is given by dividing discrete cosine transform coefficient by the quantization parameter.

7. The video communication system of claim 1, wherein the first and second error concealment processing units perform the error concealment by calculating average of motion vectors of blocks surrounding an error block and performing motion compensation to a reference frame.

8. The video communication system of claim 7, wherein the surrounding blocks for obtaining the average of the motion

vectors are upper and lower blocks of a block in which the error occurs.

9.   A video decoder comprising:

a variable length decoding (VLD) processing unit for receiving a compressed video stream from a video encoder and performing a variable length decoding;

a data extraction unit for extracting a hidden data from the variable length decoded stream, the hidden data being transmitted using a data hiding from the video encoder, extracting an information on an error frame, and providing the extracted frame information to the video encoder; and

an error concealment processing unit for performing an error concealment with reference to the extracted hidden data.

10.   The video decoder of claim 9, wherein the hidden data is extracted during an inverse quantization.

11.   The video decoder of claim 9, wherein the video encoder performs the data hiding using a quantization parameter with respect to an encoding video image and/or a level value of a block to which a discrete cosine transform (DCT) is performed.

12.   The video decoder of claim 9, wherein the hidden data extracted at the data extraction unit is a reference frame number

of a frame that is encoded when the video encoder performs the error concealment.

13. The video decoder of claim 9, wherein the extracted frame information is an information that represents whether or not the error occurs in each GOB (group of block).

14. The video decoder of claim 9, wherein the error concealment processing unit performs the error concealment by calculating average of motion vectors of blocks surrounding an error block and performing motion compensation to a reference frame.

15. A video coding method comprising the steps of:
    extracting an error frame information at a video decoder during a decoding and providing the extracted error frame information from the video decoder to a video encoder;
    performing an error concealment at the video encoder with reference to the error frame information provided from the video decoder, performing data hiding to a reference frame used in an error concealment, and transmitting the hidden data to the video decoder; and
    extracting the hidden data transmitted from the video encoder at the video decoder, modifying a reference frame of a frame that is encoded using the extracted hidden data, and performing an error concealment.

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16. The video coding method of claim 15, wherein the extracted frame information is an information that represents whether or not the error occurs in each GOB (group of block).

17. The video coding method of claim 15, wherein the video encoder performs the data hiding using a quantization parameter with respect to an encoding video image and/or a level value of a block to which a discrete cosine transform (DCT) is performed.

18. The video coding method of claim 15, wherein the video encoder and the video decoder perform the error concealment by calculating average of motion vectors of blocks surrounding an error block and performing motion compensation to a reference frame.